REMARKS

Claims 1 to 4 are pending in the present application. Applicants respectfully submit that the pending claims are patentable for the following reasons and reconsideration is respectfully requested.

I. Rejection of Claims 1 to 4 Under 35 U.S.C. § 112, Second Paragraph

Claims 1 to 4 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly failing to point out and distinctly claim the subject matter which the applicants regard as the invention. Applicants respectfully submit that claims 1 to 4 are consistent with the requirements of 35 U.S.C. § 112, second paragraph for the following reasons.

Although not necessarily agreed with, in order to further prosecution, claims 1 and 4 have been amended, in light of the Office Action of September 18, 2006 wherein the tool has been recited as providing at least two alignment pins, a shaft, an arrangement of lock fingers and an arrangement of finger tabs.

Applicants submit that the feature of "divots" is not a part of the claimed method, but are, in fact, part of the nuclear structure being handled, therefore for this feature, applicants respectfully submit that claim 1 is proper and consistent with the requirements of 35 U.S.C. §112, second paragraph. As the method merely describes the apparatus being lifted, the method is not a product by process limitation.

Applicants have further clarified claim 4, in light of the Final Office Action, thereby obviating the rejection. Applicants respectfully request withdrawal of the rejection of claims 1 to 4 under 35 U.S.C. §102, second paragraph.

II. Rejection of Claims 1 to 4 Under 35 U.S.C. §102(b)

Claims 1 to 4 were rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent Number 4,834,934 ("Salton et al. "). Applicants respectfully submit that the Salton et al. reference does not anticipate claims 1 to 4 for the following reasons.

As regards this anticipation rejection, to reject a claim as anticipated the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See, *Scrips Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 101, 1010 (Fed. Cir. 1991)).

Amended claim 1 relates to a method of handling a pressurized water reactor fuel assembly which has a top nozzle and guide thimbles and divots, comprising, supporting a tool having at least two alignment pins, a shaft, an arrangement of lock fingers, and an arrangement of finger tabs configured to handle the fuel assembly, positioning the tool over a top of the fuel assembly, lowering the tool onto the top of the fuel assembly such that the at least two alignment pins engage the top nozzle of the fuel assembly; actuating the shaft to lower lock fingers into the guide thimbles of the fuel assembly; positioning the arrangement of lock fingers to a position in front of the divots of the guide thimble in the fuel assembly to be engaged; engaging the arrangement of lock finger tabs into the divots of the guide thimble to an extended position, and lifting the fuel assembly and the tool, wherein structural load of the lifted fuel assembly passes to the tool during the lifting of the fuel assembly through the lock fingers positioned in the divots of the guide thimble, the divots formed by swaging of the guide thimbles to guide thimble sleeves that attach the top nozzle of the fuel assembly to the guide thimbles.

Salton et al. relates to a thimble grip fuel assembly handling tool. Title. Salton et al. provide a gripping member 49 which is placed around a vertical rod 56. The vertical rod 56 is connected to a lift plate 42 such that when the lift plate 42 is actuated by a lifting means, the vertical rod 56 is lifted in conjunction with the lift plate 42. Additionally, the gripping member 49 is connected to an actuating plate 45. When the lift plate 42 is raised with respect to the actuating plate, the vertical rod 56 is raised inside the gripping member 49. As illustrated in Salton et al. Figure 2, a first frustoconical surface 59, connected to the vertical rod, is moved upward in relation to the gripping member 49. A deformable sleeve 64 then impacts both the first frustoconical surface 59 at the bottom and a beveled surface 85 that is the bottom most portion of the gripping member 49. Additional lifting of the lift plate 42 relative to the actuating plate 45 causes further deflection of the

deformable sleeve 64. Salton et al. specifically describe that an "inside diameter" of the guide tubes 50 are grabbed. Col. 7, lines 46 to 51. To grab this "inside diameter", the gripping members are "fully inserted" within the fuel assembly. Col. 8, lines 63 to 67. After "fully inserted", the "full weight" of the fuel assembly is suspended from the tool 20. Col. 8, line 67 to 68. To achieve full insertion, the gripping members 49 are fully inserted within the control rod guide tube 50 "past the area where crimping has taken place." As a result, the gripping members do not grab a dimpled area, but are instead fully inserted into the length of the guide tube. Salton et al., therefore, teach away from engaging the lock fingers into the divots to an extended position, rather Salton et al. are solely concerned with full insertion of the gripping members into the fuel assembly. To this end, Applicants have amended claim 1 to recite the feature of lifting the fuel assembly and the tool, wherein structural load of the lifted fuel assembly passes to the tool during the lifting of the fuel assembly through the lock fingers positioned in the divots of the guide thimble and have specified that the divots formed by swaging of the guide thimbles to guide thimble sleeves that attach a top nozzle of the fuel assembly to the guide thimbles. Salton et al. clearly do not disclose this configuration, as provided above. Applicants respectfully request withdrawal of the rejection to claim 1.

Applicants further submit that the Salton et al. reference expands sleeves inside the guide thimbles and therefore relies on friction for the inserts to grip the guide thimbles. The present invention, however, relates to a method of using a tool that utilizes the existing swages in the guide thimbles as receivers for the protrusions on the lock fingers to provide a positive engagement with the guide thimble. The tool has protrusions which extend from the main diameter of the finger which lock into the divot provided by the existing fuel assembly swage, providing a mechanical engagement for a load path, instead of friction, different than the Salton et al. reference.

Applicants further submit that the Salton et al. reference tool engages the top nozzle of a fuel assembly. The method of the present invention, however, does not require the use of the secondary load path of the Salton et al. reference. The present invention does not require the secondary load path design or method of using this design required in the Salton et al. reference

as the mechanical interface with the guide thimbles in the present invention is sufficient to bear the load of the fuel assembly when lifted. Applicants furthermore submit that the present invention provides advantages not possible with the Salton et al. reference, as the Salton et al. design always stresses the suspect guide thimble sleeves. As a result of the Salton et al. reference requiring the use of the suspect guide thimble sleeves, applicants respectfully submit that the method of the present invention provides significant advantages as compared to the Salton et al. reference wherein the guide thimbles sleeves are not subjected to the secondary load path required in Salton et al.

The method of the present invention provides further advantages not seen in the Salton et al. reference. Applicants respectfully submit that Salton et al. provide a design that works at a single elevation below the top grid of the fuel assembly. In the instance that the guide thimbles sleeves are damaged at this single elevation, the Salton et al. tool cannot lift the fuel assembly. Contrary to the Salton et al. reference, the method and tool of the present invention works at multiple elevations inside a fuel assembly, thereby providing additional advantages not identified or possible with the Salton et al. reference.

The Salton et al. reference provides a positive indicator that the tool is fully actuated, but does not provide any indication of the ability to lift a fuel assembly. The present invention provides an indication that the lock fingers are in position, locked and will accept the load to be applied, providing a further advantage over the Salton et al. reference.

Claims 2 to 4 depend from claim 1 and therefore include all of the features of claim 1. Applicants respectfully submit that claims 2 to 4 are patentable for at least the reasons provided above. Applicants respectfully request withdrawal of the rejection to claims 2 to 4.

III. Conclusion

In view of the foregoing, it is respectfully submitted that all pending claims of the present application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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Dated: Dec 7, 2006

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